

REMARKS

[0001] Applicant's attorney respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-2, 5-19, and 21-27 are presently pending. Claims 1 and 15 are amended herein. Claim 20 is canceled herein.

Formal Request for an Interview

[0002] If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

[0003] Please contact me to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

Allowable Subject Matter

[0004] Applicant would like to thank the Examiner for indicating allowability of claims 13 and 14. These claims have not been substantively amended herein, and therefore remain allowable.

Substantive Matters

Claim Rejections under § 112 1ST ¶

[0005] Claims 20 is rejected under 35 U.S.C. § 112, 1st ¶. Applicant's attorney respectfully traverses this rejection. Furthermore, in light of the amendments presented herein, Applicant's attorney submits that these rejections are moot. Accordingly, Applicant's attorney asks the Examiner to withdraw these rejections.

Claim Rejections under § 101

[0006] Claims 1, 2, 5-10 and 15-25 are rejected under 35 U.S.C. § 101. Applicant respectfully traverses this rejection. Applicant respectfully traverses this rejection. Applicants respectfully disagree and submit that the claims are directed toward a method and system capable of being carried out in a computer, *e.g.*, a computer-implemented method or computer system. MPEP § 2106(IV)(B)(1) specifically states that "a claimed computer readable medium encoded with a data structure *defines* (emphasis added) structural and functional interrelationships between the data structure and the medium which permit the data structure's functionality to be realized, and is thus statutory." In contrast, MPEP § 2106(IV)(B)(1a) goes on to state further "[d]ata structures *not claimed as embodied in computer-readable media* (emphasis added) are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

[0007] In specific, claims 1 and 15 have been amended to recitations similar to claims 13, 14, 26, and 27 as suggested by the Examiner and that have been already been deemed statutory by the Examiner. This recitation certainly provides an enumerated statutory category (the circuit is a device (*i.e.*, a machine) and when storing the sequence therein, a physical transformation of stored energy is realized and the use of which may realize an encryption scheme in a computer system. Even if these recitations are considered software *per se*, the execution of the method still imparts functionality to the computer-implemented method. When functional descriptive material is recorded on some computer-readable medium, *e.g.* a computer-implemented method, it becomes structurally and functionally interrelated to the medium and will be statutory since use of technology permits the function of the descriptive material to be realized. See, for example, *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim).

[0008] In light of the foregoing and the amendments presented herein, Applicant's attorney respectfully submits that these claims comply with the patentability requirements of §101 and that the §101 rejections should be withdrawn. Applicant's attorney further asserts that these claims are allowable. Accordingly, Applicant's attorney asks the Examiner to withdraw these rejections.

[0009] If the Examiner maintains the rejection of these claims, then Applicant's attorney requests additional guidance as to what is necessary to overcome the rejection.

Claim Rejections under § 102 and/or § 103

[0010] The Examiner rejects claims 15-27 under § 102. For the reasons set forth below, the Examiner has not shown that the cited references anticipate the rejected claims.

[0011] Furthermore, the Examiner further rejects claims 15-27 under § 103. For the reasons set forth below, the Examiner has not established a *prima facie* case for obviousness with regard to the rejected claims.

[0012] Accordingly, Applicant respectfully requests that the § 102 and § 103 rejections be withdrawn and the case be passed along to issuance.

[0013] The Examiner's rejections are based upon the following references:

- **Butler 6,678,707:** *Butler* US Patent No. 6,678,707 (issued January 13, 2004); and
- **Smeets 6,813,625:** *Smeets* US Patent No. 6,253,236 (issued November 2, 2007).

Anticipation Rejections

[0014] Applicant submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.¹ Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.²

Based upon Smeets

[0015] The Examiner rejects claims 15-27 under 35 U.S.C. § 102(e) as being anticipated by *Smeets*. Applicant's attorney respectfully traverses the rejection of these claims. Based on the reasons given below, Applicant's attorney asks the Examiner to withdraw the rejection of these claims.

Independent Claims 15, 26, and 27

[0016] Applicant's attorney submits that *Smeets* does not anticipate these claims because it does not disclose all of the elements as recited in these claims. In specific, each of these claims recites "a chaos-based pseudo-random value" as well as various additional recitations relevant to each claim focus. A chaos-based pseudo-random value may be produced from a chaotic map which, as used

¹ "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

² See *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

in the present application provides a series of values based upon a chaotic sequence.

[0017] Applicant's attorney is confused as to how *Smeets* can be asserted as a reference which anticipates these claims when there is absolutely no discussion or mention anywhere in the text of *Smeets* which teaches, much less even recites, the words chaos, chaotic, chaos-based or any variation thereof. Simply put, *Smeets* is wholly and completely unaware of the concept of a chaos-base pseudo random value as recited in these claims.

[0018] Furthermore, Applicant's attorney is even further confused by the discussion presented by the Examiner about what *Butler* does and does not teach when discussing the anticipation rejection based upon *Smeets*. It seems that the Examiner utilized language from previous rejections involving *Butler* which further points to a lack of anticipation on the part of *Smeets* as a reference.

[0019] Consequently, *Smeets* does not disclose all of the elements and features of this claim. Accordingly, Applicant's attorney asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 16-25

[0020] These claims ultimately depend upon independent claim 15. As discussed above, claim 15 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Obviousness Rejections

Lack of *Prima Facie* Case of Obviousness (MPEP § 2142)

[0021] Applicant disagrees with the Examiner's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that all of the criteria set forth for making a *prima facie* case have not been met. To establish *prima facie* obviousness of a claimed invention, all of the claim recitations must be taught or suggested by the prior art¹ and "all words in a claim must be considered in judging the patentability of that claim against the prior art."² Further, if prior art, in any material respect teaches away from the claimed invention, the art cannot be used to support an obviousness rejection.³ Moreover, if a modification would render a reference unsatisfactory for its intended purpose, the suggested modification / combination is impermissible.⁴

Based upon *Butler*

[0022] The Examiner rejects claims 15-27 under 35 U.S.C. § 103(a) as being unpatentable over *Butler*. Applicant's attorney respectfully traverses the

¹ *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)

² *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)

³ *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed Cir. 1997)

⁴ See MPEP § 2143.01

rejection of these claims and asks the Examiner to withdraw the rejection of these claims.

Independent Claims 15, 26, and 27

[0023] Applicant's attorney submits that *Butler* does not teach or suggest at least all of the elements as recited in this claim. In specific, these claims each recites a variation of using a chaos-based pseudo random value in generating encrypted data.

[0024] The Examiner correctly acknowledges that *Butler* does not teach this concept of using a chaos-based pseudo random value in generating encrypted data. In fact, just as the case with *Smeets*, the words chaos, chaotic, chaos-based or any variation thereof simply do not appear anywhere within the text of *Butler*. However, the Examiner seems to equate a random-number generator as somehow teaching generating a chaos-based pseudo random value. This is simply not true as there is no teaching or suggestion anywhere in any prior art of record that is cognizant of the concept of chaos-based anything.

[0025] As shown above, *Butler* does not teach or suggest all of the elements and features of this claim. Accordingly, Applicant's attorney asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 16-25

[0026] These claims ultimately depend upon independent claim 15. As discussed above, claim 15 is allowable. It is axiomatic that any dependent claim

which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Conclusion

[0027] All pending claims are in condition for allowance. Applicant's attorney respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Examiner is urged to contact me before issuing a subsequent Action. Please call or email me at your convenience.

[0028] Any additional fees required as a result of this amendment have been paid from the below-referenced deposit account as filed herewith. Should further payment be required to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

Respectfully Submitted,

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Representatives for Applicant

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